

Product Presentation
ZEISS CONTURA

Prepared for all challenges – today and tomorrow

Product Presentation
Fields of Applications by Industry

Industry
- Small housings
- Stamped parts
- CNC machined parts
- Plastic parts
- Free form surfaces



Medical
- Hip parts – e.g. femoral stem
- Joints
- Screws
- Bone plaque

Aero
- Blades

Electronics
- Circuit boards

Product Presentation
Fields of Applications by Industry

Industry

- Small housings
- CNC machined parts
- Plastic parts
- Gears



Product Presentation
Fields of Applications by Industry

Medical

- Hip parts – e.g. femoral stem
- Joints
- Screws



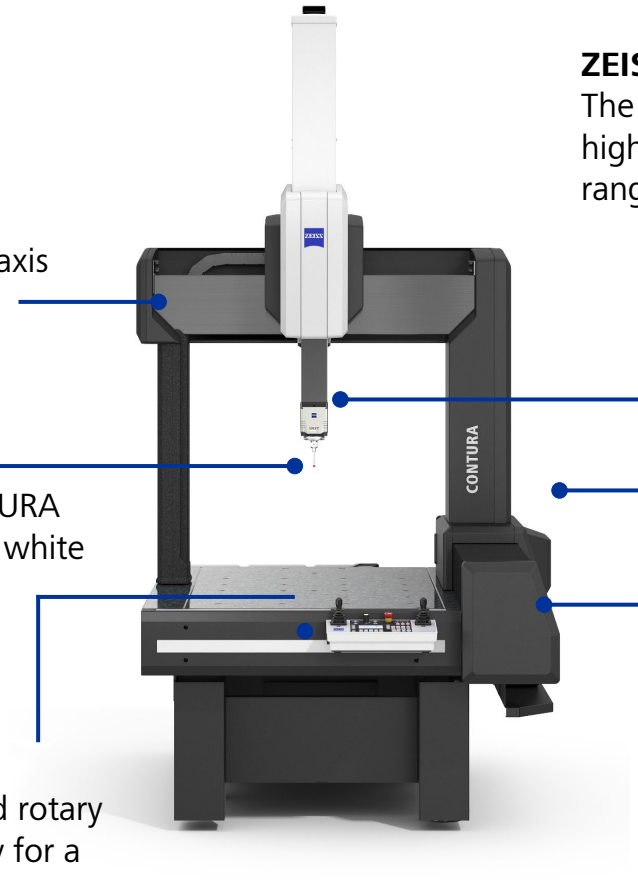
Product Presentation
Fields of Applications by Industry

Electronics

- Connectors



Product Presentation
Key characteristics



Special coating
The guideways in X axis and Z axis are treated with a special, robustness coating.

ZEISS DotScan
The fifth generation of ZEISS CONTURA can be equipped with our confocal white light sensor: ZEISS DotScan.

Rotary table
The new surface mounted rotary table opens the possibility for a four-axis scanning measurement.

ZEISS mass technology
The ZEISS mass technology allows in this class high resolution of points by using the whole range of scanning sensors.

Glass ceramic scales
Guaranteed high accuracy due to floating glass ceramic scale mounted on the carrier material.

ZEISS Air Bearings
The new ZEISS Air Bearings are standing for long-lasting and robustness.

Product Presentation
Reasons to Buy

01 Measure More Applications

02 ZEISS CONTURA Options

03 Cost Effectiveness

04 Reliability & Performance

05 Robustness

06 Worldwide Sales and Service

07 Software: ZEISS CALYPSO

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Product Presentation
Measure more applications

ZEISS mass technology

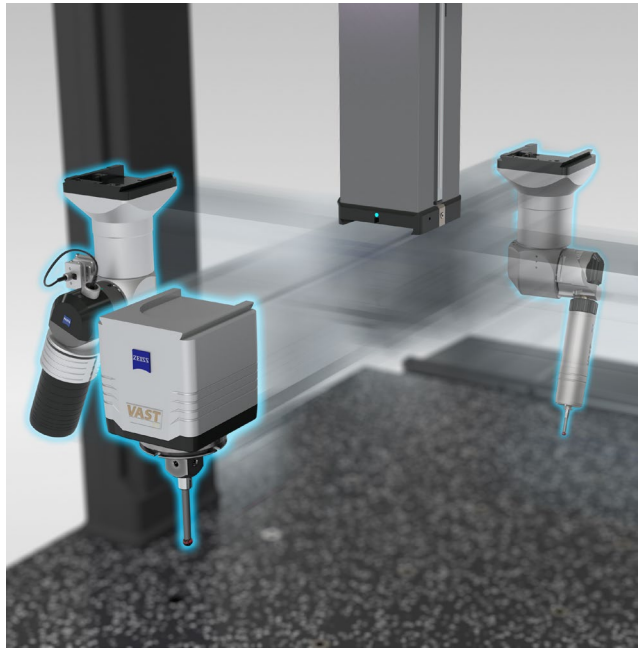
Technical explanation and example

The ZEISS mass technology allows in this class high resolution of points by using the whole range of scanning sensors.

The measuring task requires the application and therefore, also the selection of the right sensor. mass unites in this class all needs of applications by offering a bunch of sensors.

How you benefit

- More flexibility
- No need for pre-selection of the sensor which fits at best to the application.





The way to more flexibility

Be prepared today for the challenges of the future. No problem with ZEISS CONTURA and the mass technology from ZEISS. One platform and three sensor technologies that complement each other perfectly. Regardless of whether large areas need to be detected quickly or individual points need to be detected with high precision, mass allows you to switch between the sensor technologies in just three steps. Flexibility and accuracy are no longer a contradiction in terms with ZEISS CONTURA.

EASY, FAST, PRECISE & FLEXIBLE

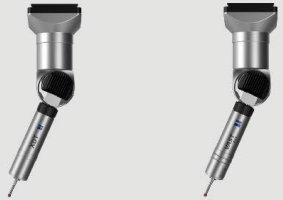
7 SENSORS

3 TECHNOLOGIES

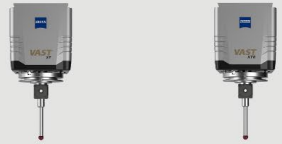
1 CMM



optical



tactile



scanning

Step by step to more flexibility



STEP 1

Mounting sensor

Whether with a ZEISS VAST XXT tactile measuring head mounted on a RDS or with a tactile measuring head from the ZEISS VAST XT gold series - thanks to the dovetail mechanism, it is easy to switch between the sensors. Only one screw needs to be loosened to allow easy exchange between the sensors.



STEP 2

Locking sensor

The locking of the exchanged sensor is again done by a single screw. This is tightened with a defined torque of 2 Nm. An additional connection of cables is not necessary, because all connections are protected inside the sleeve and damage is impossible.



STEP 3

Automatic sensor recognition

Each ZEISS sensor is equipped with an ID chip which is automatically recognised by the machine when it is commissioned and is selected in the ZEISS CALYPSO measuring software. This system eliminates operating errors and allows the user to concentrate on the things that really matter - his measuring tasks.

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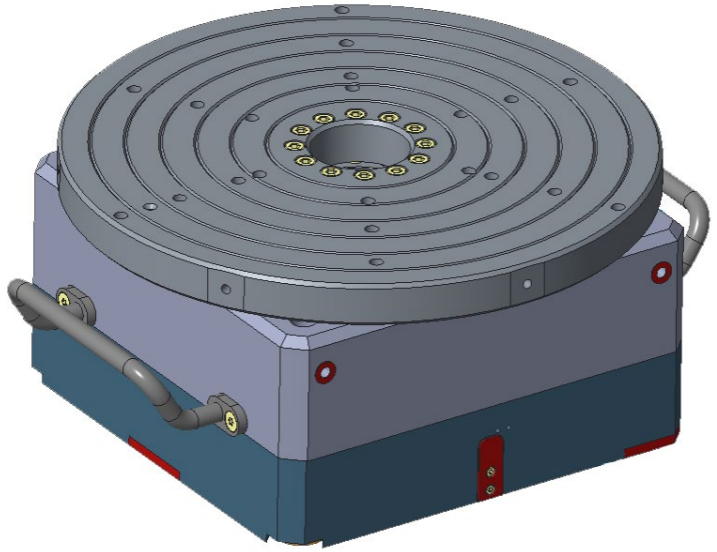
Product Presentation
ZEISS CONTURA with Rotary table

Technical explanation and example

The optional surface mounted rotary table allows to easily capture geometries with high accuracy. Furthermore it reduces the complexity through the reduction of stylus exchanges, resulting in time savings.



How you benefit

- Reduces the complexity through the reduction of stylus exchanges
- Time saving

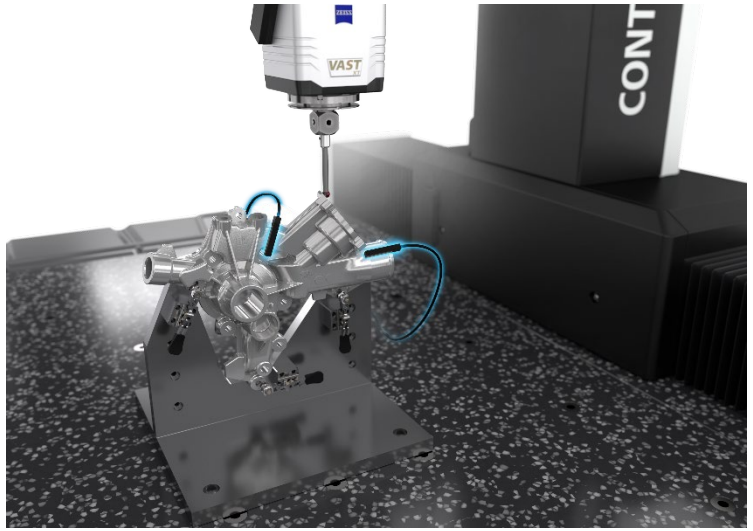
The Rotary table comes with:

- 300 mm face plate
- Three jaw chuck
- Center pin for alignment
- Electric package for ZEISS CONTURA

Product Presentation
ZEISS CONTURA with HTG Option

Technical explanation and example

The High Temperature Gradient (HTG) option allows a precise measurement in a higher temperature range between 18° to 26°C. In this temperature range ZEISS CONTURA can be used with a temperature limitation of: 1 K/h or 1,5 K/d or 1 K/m.



How you benefit

- More flexibility by extending the temperature range
- Less costs for air conditioning

The HTG option comes with:

All options can be ordered also separately

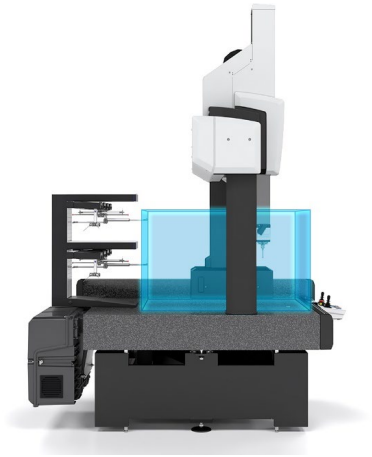
- Two temperature sensors for workpiece temperature correction
- Bellows in the Y-axis to protect against dirt and dust
- Front protection and panel holder

Product Presentation
ZEISS CONTURA with ZEISS ProMax E

Technical explanation and example

The automated probe changing magazine ZEISS ProMax E provides up to 27 styli systems (MT / VAST) outside the measuring range for fully automatic probe change. This allows an optimum use of measuring volume for the workpiece and the movement path of the measuring head without the risk of collision.
Especially for ZEISS CONTURA a dedicated position is defined **outside** the measuring range.





How you benefit

- Use more: Up to 46 %* more available measuring range
- Exploit more: for up to 27 probe sockets available MT/VAST or XTR
- Combine more: Multi-Sensor capability - can be combined with all ZEISS probe sockets
- More safety: improved repeatability by electric drive
- Optimized UX-experience through modular design: available in appropriate CMM sizes with up to three levels

*Example calculated on ZEISS CONTURA 7/10/6 and probe system Y+300 mm - Calculation depends on the size of the machine, the probe systems and the workpiece.

Product Presentation
ZEISS CONTURA with ZEISS CARBOTAN®

Technical explanation and example

ZEISS CARBOTAN® extensions are made of carbon fiber with unique winding. These extensions are very light weight, thermally much more stable than aluminum and up to 42 % more stiff than titanium.



How you benefit

- Allows the assembly of more complex stylus systems, also on probes with strict weight limit
- More accurate measurements
- Higher precision even when scanning the workpiece
- Less influence of environmental temperature
- No additional costs – ZEISS CARBOTAN ® has a similar price level as aluminum and titanium extensions

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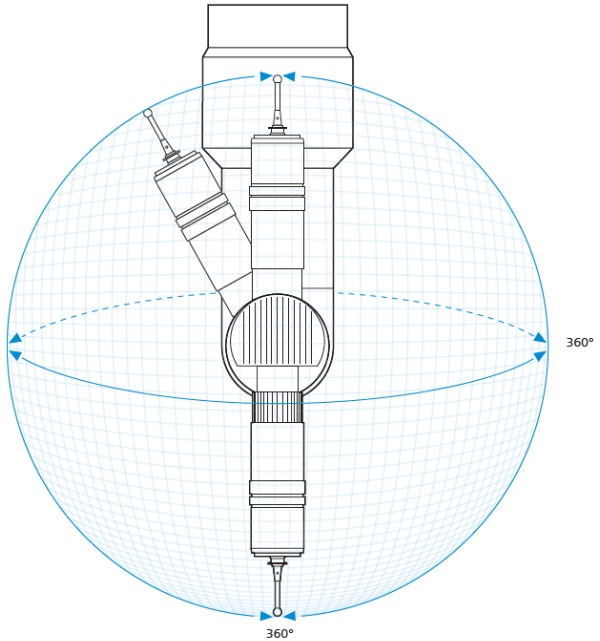
Product Presentation
Cost effectiveness

ZEISS RDS-D CAA

Technical explanation and example

Step range of 2,5° in A and B axes enables high resolution of positions (20,736) as well as movement in all axes – in 12 minutes!



How you benefit

- Reduction of operating time by an exponential factor due to the RDS probe head with integrated CAA, which requires no single angle qualification.

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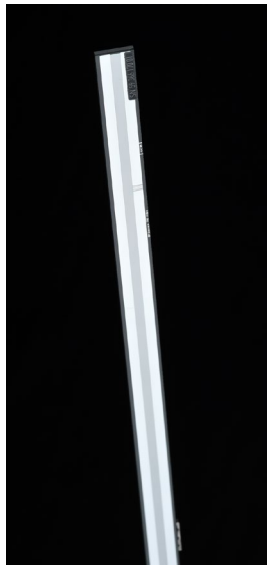
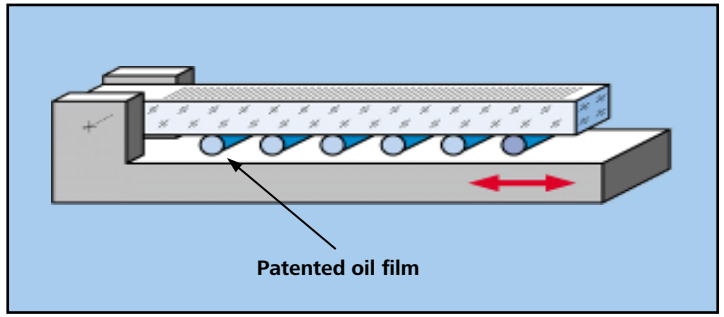
Product Presentation
Reliability & performance

Leading Hardware Technologies

Technical explanation and example

The glass ceramic scale is virtually expansion-free over a wide range of temperatures. Because temperature expansion on the guideways and bridge cannot be fully eliminated, the scales float on a film of oil.





How you benefit

- The scales adjustment to the carrier material, glass ceramic scales with almost no temperature expansion, no need for temperature sensors (unique in this class).

- Stable measurements

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Product Presentation
Robustness

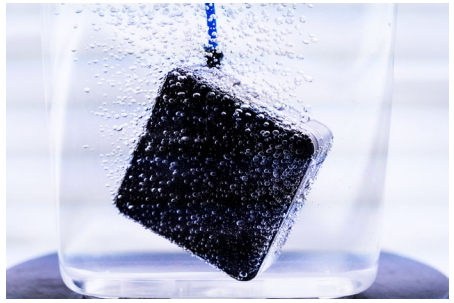
Special coating and ZEISS Air Bearings

Technical explanation and example

✓The guideways in X axis and Z axis are treated with a special, robustness coating. This characterizes a very high hardness and a very low friction.

✓The new ZEISS Air Bearings are standing for long-lasting and robustness. They are using millions of holes due to a porose graphite layer.





How you benefit

- Virtually no downtime
- Less service deployment
- Reducing of the maintenance cycle
- Mean time between failure (MTBF) goes higher

Product Presentation
Reasons to Buy

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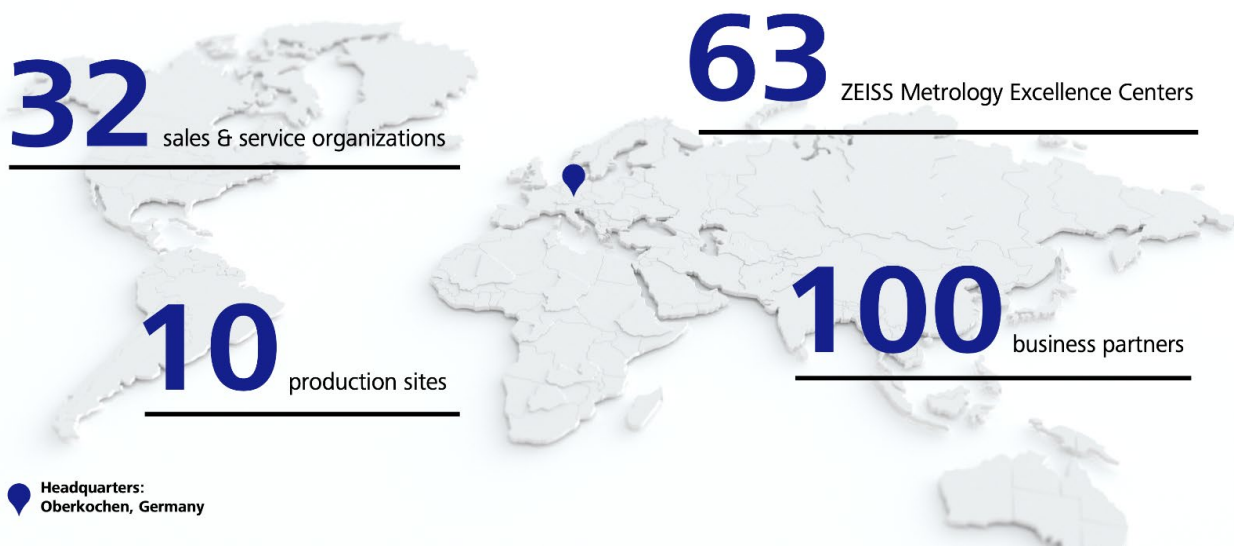
Product Presentation
Worldwide sales and service

Our Global Know-how: ZEISS IQR Network



How you benefit

- ZEISS know-how & application technicians available globally.
- Service & support very close to the customer means fast reaction times.
- Less downtime and more security.

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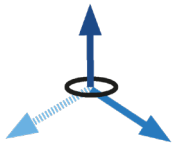
Product Presentation
Software: ZEISS CALYPSO

One for all

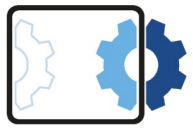
Technical explanation and example

- ZEISS CALYPSO enables a consistency and compatibility across all ZEISS CMMs with additional features like ZEISS GEAR PRO measurements.
- Operate various ZEISS CMMs with one training.

C A L Y P S O



ZEISS CMMs



ZEISS X-Ray

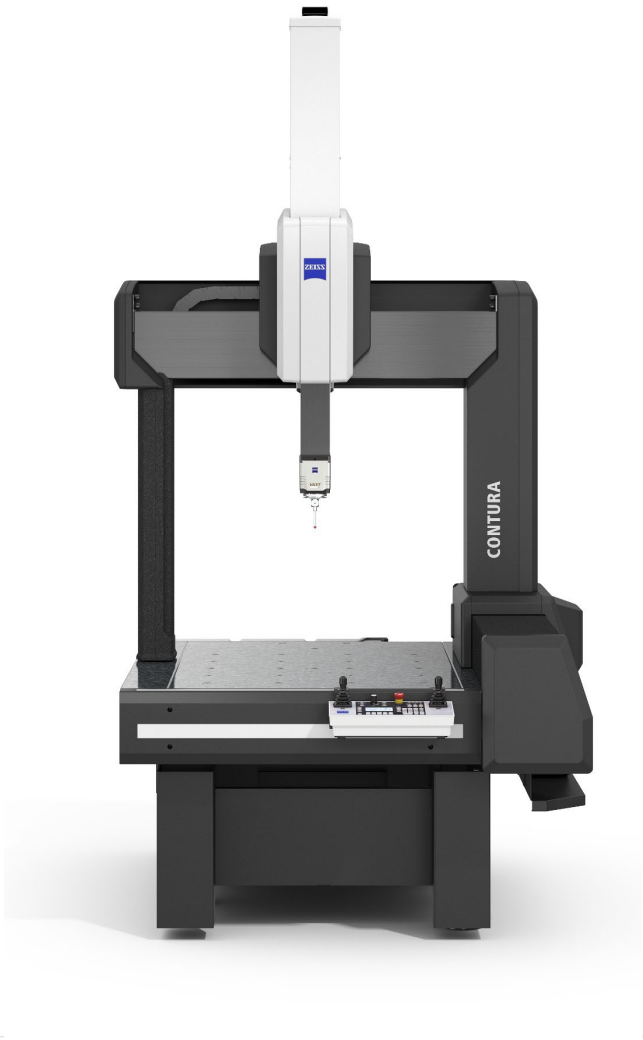


ZEISS Sensors

How you benefit

- Cost saving because of fewer training hours.
- More efficient operation thanks to a familiar user interface.
- A CNC will run on different ZEISS CMMs immediately.
- Optimized software for specific applications.

Product Presentation
Configuration standards



Sizes
- 7/7/6
- 7/10/6
- 9/12/6
- 9/12/8
- 9/18/6
- 9/18/8
- 12/18/8
- 12/18/10
- 12/24/8
- 12/24/10

Software
- ZEISS CALYPSO

Probe head
- VAST XT gold
- VAST XTR gold
- RDS-D-CAA with tactile sensors (VAST XXT)
- RDS-D-CAA with optical sensors (ViScan, LineScan One, LineScan DotScan)



Seeing beyond